

MYSTERY LINES ON THE NULLARBOR

A series of five long parallel lines have been observed on daytime satellite images of the Western/South Australian border, leaving geologists scratching their heads.

The lines, estimated to be about 400 kilometres long and 5-15 kilometres wide, were found on images of the Nullarbor Plain, the vast desert that stretches north from the Great Australian Bight.

But they are not supposed to be there.

"The Nullarbor is supposed to be a featureless expanse," says Dr Ian Tapley of the CSIRO, Australia's national research organisation. "We have no explanation for the lines yet."

Even more puzzling is that the lines appear only during the day. This is odd because they have been detected by infrared sensors which produce their best images at night. Infrared radiation gives a measure of temperature—and temperature

differences between, say, rock and sand are greatest at night. During the day, features of the land are uniformly hot, making them difficult to identify from thermal images. The lines appear to be about 2°C cooler than the surrounding plain.

The mystery was revealed in Sydney in late August at a forum on remote sensing. Dr Ian Barton, of CSIRO's Division of Atmospheric Research in Melbourne, said the lines were first noticed last month by his colleague, Dr Fred Prata. Barton sent the images for analysis to Tapley's group at the CSIRO Division of Exploration and Mining in Perth.

Prata was studying images taken by Europe's remote-sensing satellite, ERS-1, over 10 days in October 1992. Since this discovery, the lines have also been found on thermal images taken on the same days by a weather satellite operated by the US National Oceanic and Atmospheric Administration.

(Sources: *New Scientist*, 3 Sept '94; CSIRO)

MEDICAL STUDENTS REJECT DARWINISM

The British medical journal *The Lancet* has published a survey carried out by professor Roger Short from the department of Physiology at Monash University, Victoria. The questionnaire was given to over 150 first year medical students.

Twenty-seven per cent of those surveyed thought species did not evolve by natural selection, i.e., Darwin was wrong. Twenty-seven per cent also believed that humans could not have evolved from apelike ancestors, and twenty-one per cent believed God created Eve from Adam's rib.

The students then attended eight lectures on evolutionary theory, were taken on an excursion to meet their ancestors, and asked to write an essay on the topic, "Discuss the origin and destiny of the current races of mankind". All essays supported evolutionary theories.

After this, they were surveyed again. There were no significant changes in the answers to any of the questions.

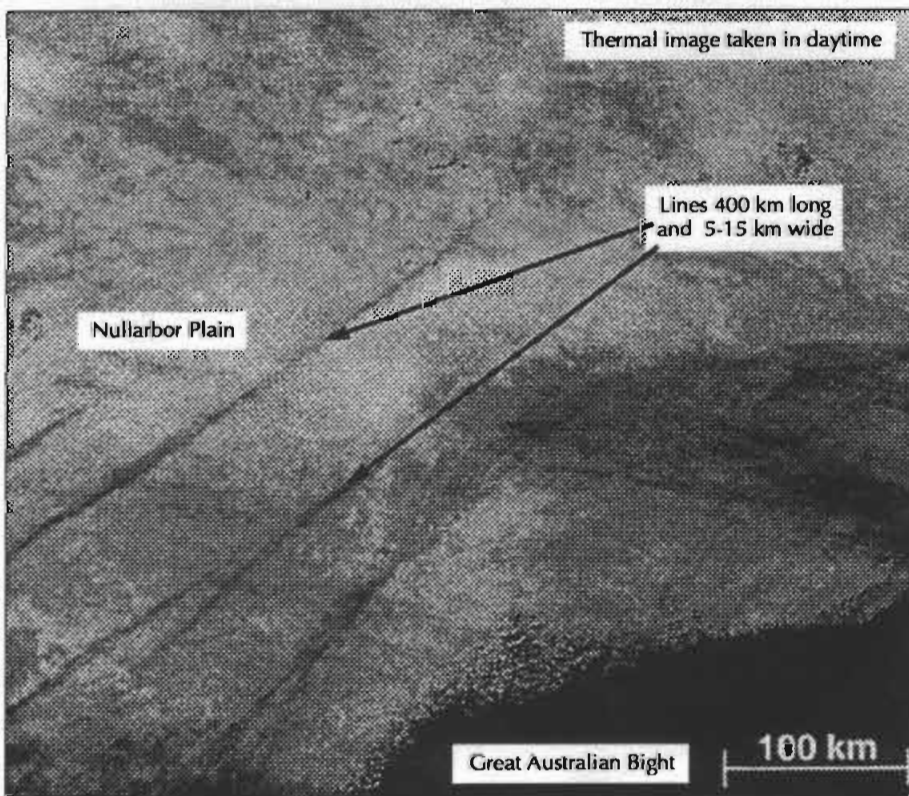
(Source: *The Sydney Morning Herald*, 11 April 1994)

CONFLICTING DATA ABOUT EXTENT OF ICE AGE

An American geologist, Christopher Scotese of the University of Texas, believes that most glaciers in the ice age of 650 million years ago never got within 30 degrees of the equator.

Geologists can track the motion of continents hundreds of millions of years ago because the direction of the Earth's magnetic field changes with latitude, and is fixed in the rocks as they solidify. Most geologists believe Africa, North America, Australia and Europe were near the equator during this ice age. Evidence suggests that these continents contained glaciers at this time.

Christopher Scotese has been analysing magnetic data collected by Rob Van Der Voo of the University of Michigan, and Chris Powell of the University of California at Santa Barbara. He came up with a model that puts West Africa and much of Europe near the South Pole, the



limestone belts of Central Africa, Arabia and India near the equator, and glaciated south China at 50° to 60° North.

It is interesting to note that for the popular model to be correct, carbonate deposits must have formed far away from the equator. Carbonate deposits normally only form in warm waters.

Maybe it's the assumptions themselves that need questioning.

(Source: *New Scientist*, 30 July 1994)

MATTER AS BUBBLES IN THE AETHER

by Chris Illert

Even as recently as the 1920s, orthodox science believed in a static cosmos, until Edwin Hubble demonstrated that it was actually expanding and, therefore, must have originated long ago in some titanic 'Big Bang'.

Today, most scientists agree that the Universe is outwardly expanding and is of finite age, born from a dramatic 'phase transition' when the "aether" (quantum vacuum) jumped from one energy state to another, "sucking matter into physical existence" within our universe.¹

If one reads Leadbeater's Appendix to the 1919 edition of *Occult Chemistry*², or William Kingsland's *The Physics of the Secret Doctrine* (1910)³, it is clear that occult chemists were speaking of proto-aether "Mulaprakriti" (what Paul Davies calls "the initial false vacuum") undergoing an expansionary phase-change to become "Koilon" (our present-day "normal quantum vacuum") driven by "Cosmic Fohat" (the "Superforce" of Paul Davies⁴) which blew bubbles (i.e., 'material' particles) in an infinitely dense aether.

Cosmic Fohat, a unified Superforce to start with, subsequently split into the four presently-known natural forces: gravitation, electromagnetism, the strong and the weak nuclear forces.

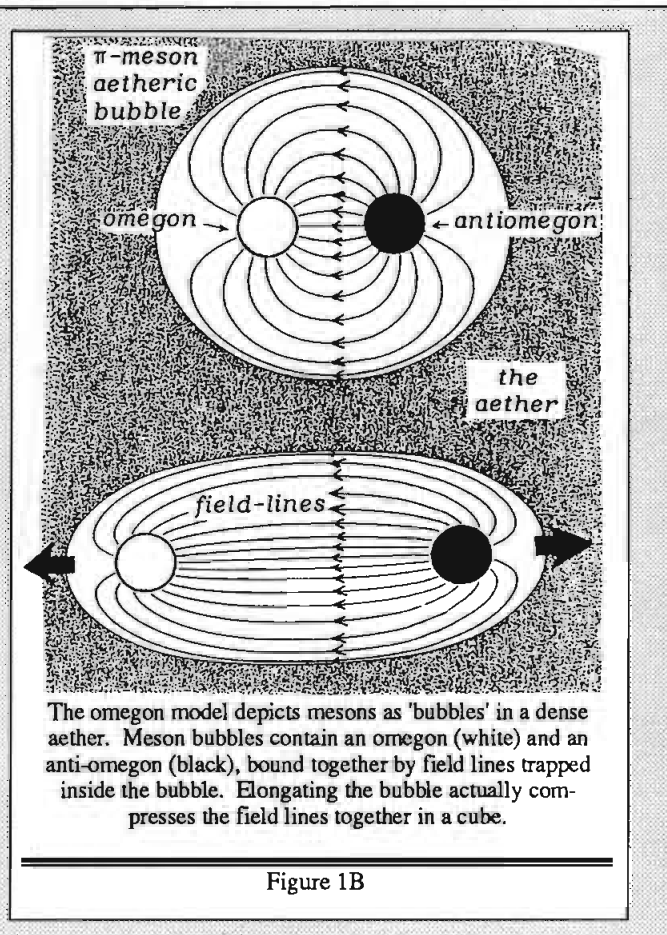
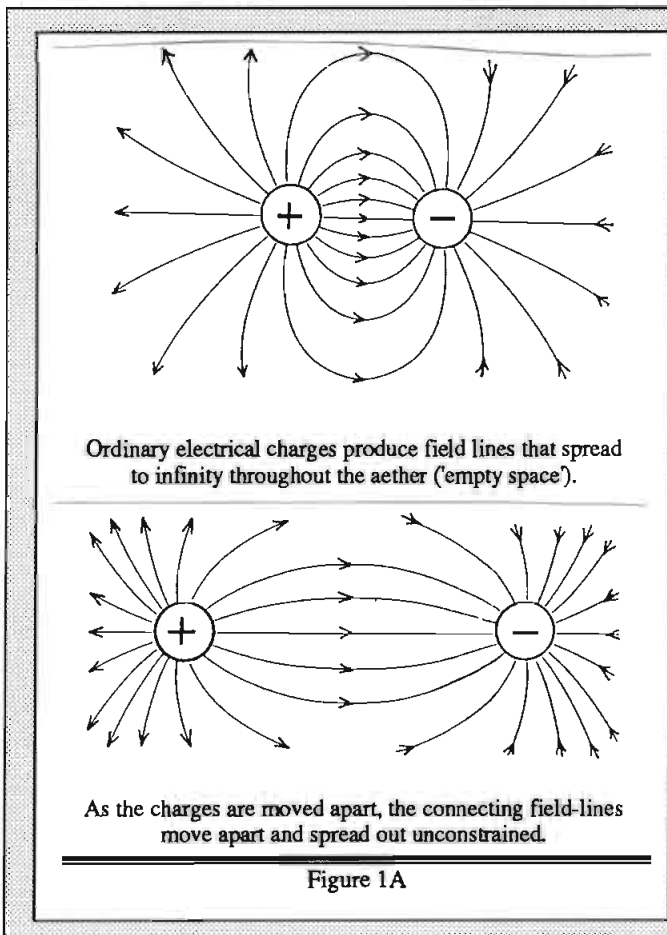
The occultists labour the point that instead of matter being solid within an empty insubstantial aether, the aether itself is very dense (one thousand million times denser than platinum, according to Oliver Lodge's estimate), and matter is really just bubbles—the absence of aether.

The 19th century concepts underlying this occult cosmology are easily visualised in terms of liquid in a cylinder. Fizzing

can be induced if the piston is moved: thus did Cosmic Fohat—Superforce—induce a quantum-vacuum transition (Mulaprakriti to Koilon), releasing energy which tore the aether apart into numerous 'subatomic particles'—bubbles—which we see as substantial even though they are, in fact, the absence of substance. Thus was matter sucked into existence in the cosmic expansion.

Paul Davies writes that "what appears as empty space is actually a seething ferment...of quantum activity, teeming with [ghost] virtual particles and full of complex interactions. ...A real particle...must be always viewed against this backdrop of frenetic activity. When [a real particle] moves through space, it is actually swimming in a sea of ghost particles of all varieties...entangled in a complex *mêlée*... It is important to realise that, at the quantum level of description, the vacuum is the dominant structure. ...particles are only minor disturbances bubbling up over this background sea of activity."⁴

Thus the 'dense' aether (quantum vacuum) is scientific dogma today, even though it seemed the height of absurdity when



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Theosophists first proposed it. But what of subatomic particles? Are they really bubbles?

In Figure 1A we see electric field lines radiating through the aether between charged particles. As the electrical charges are moved apart, the field lines spread apart, off to infinity.

But one of the simplest kinds of 'massive' particles, a meson, is shown in Figure 1B. The meson is actually a bubble in the aether (quantum vacuum) and its internal ('matter') field lines are trapped within the bubble. Indeed, if the bubble is somehow stretched, the ('matter') field lines actually draw closer together! This is exactly the opposite to 'electric' field lines in the aether!

In fact, if the meson bubble stretches too far, it can divide into two bubbles (as in Figure 2). The 'charges' inside the bubbles are called quarks (represented by black dots) and antiquarks (represented by white dots).

Instead of drawing the bubble in the aether, and all its internal field lines, we will henceforth introduce a kind of cartoon called the "Nambu string". It is just the

field line which directly joins the quark and the antiquark inside the meson. But we can think of the Nambu string (or spring) as a kind of elastic band which can be stretched. If drawn too far apart, as when the meson bubble divides into two, we can think of the Nambu string as snapping—but it can never have free ends because field lines must begin and end on 'charges' (in this case, quarks and antiquarks).

So in order for the Nambu string to snap, a quark-antiquark pair must be sucked into existence from out of the aether. The quark and the antiquark cancel each other (like $+1 - 1 = 0$), so we haven't obtained something for nothing. Figure 2 thus shows a meson (matter bubble) dividing into two—and the simplified Nambu elastic string 'cartoon' gives us another way of viewing the process.

One way we could stretch and divide a meson bubble would be to make it spin very fast: then the centripetal force would draw the quark and antiquark apart, stretching the elastic 'string' that holds them together. Thus, spinning 'matter bubbles' in the aether (quantum vacuum) would tend to be elongated and oval-shaped. They are

called vector mesons and there are 37 different types of them in nature.

Non-spinning 'matter bubbles' would tend to be spherical. They are called scalar mesons and there are 36 different kinds of them also in nature.

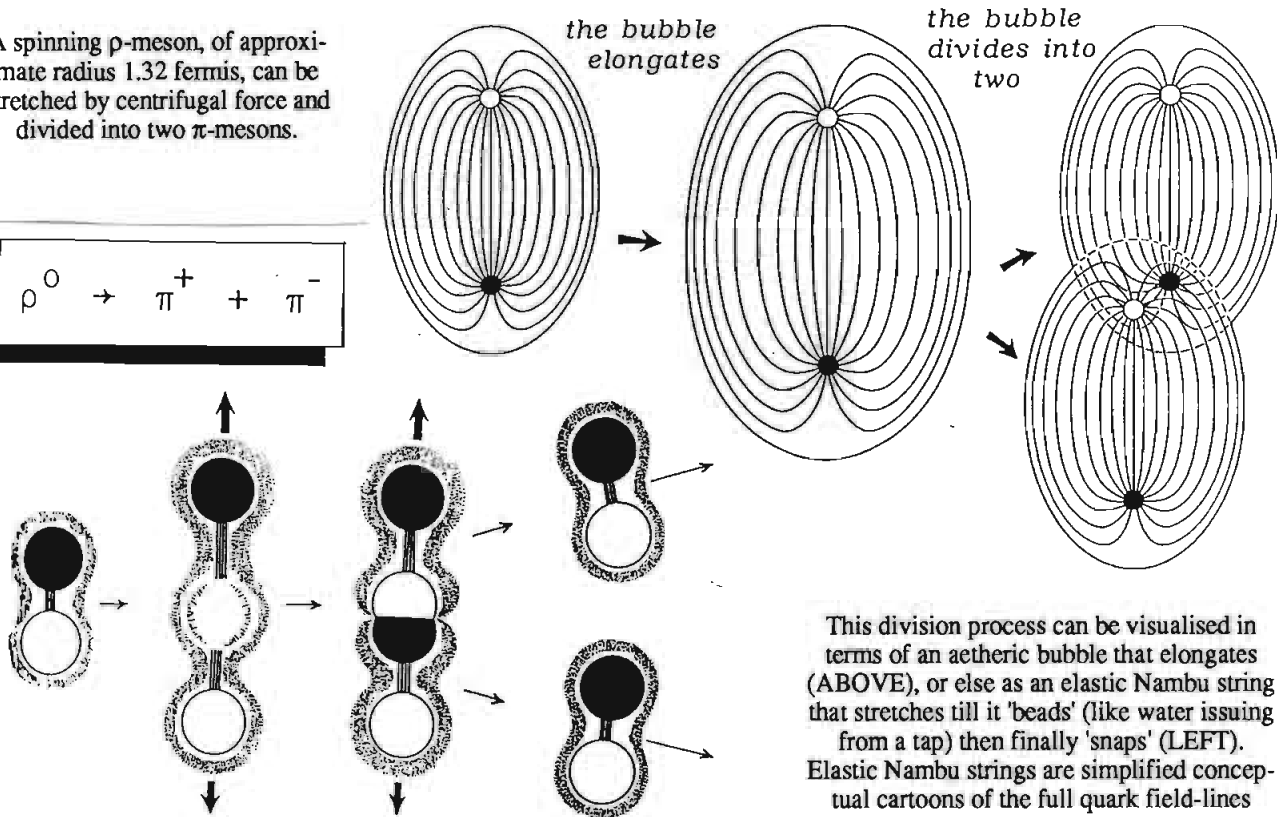
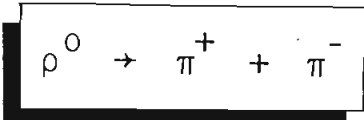
The occult chemists Besant and Leadbeater drew both kinds—vector and scalar mesons—as their E3 state of matter, in 1895.

Footnotes:

1. Chris Illert, "Theosophical Cosmogenesis", *Theosophy in Australia*, 54(4):204-8, September 1990.
2. A. Besant and C. W. Leadbeater, *Occult Chemistry*, Theosophical Publishing House, London, 1919.
3. William Kingsland, *The Physics of the Secret Doctrine*, Theosophical Publishing House, London, 1910.
4. Paul Davies, *Superforce: The Search for a Grand Unified Theory of Nature*, Heinemann, 1984, and Unwin, 1985.

Extracted from
"Alchemy Today — Volume 2"
 by Chris Illert
 (see book review on page 76)
 Chris Illert is a former staff member of Wollongong University, and a leading theoretical physicist and mathematician. He has had numerous papers published in prestigious international science journals.

A spinning ρ -meson, of approximate radius 1.32 fermis, can be stretched by centrifugal force and divided into two π -mesons.



This division process can be visualised in terms of an aetheric bubble that elongates (ABOVE), or else as an elastic Nambu string that stretches till it 'beads' (like water issuing from a tap) then finally 'snaps' (LEFT). Elastic Nambu strings are simplified conceptual cartoons of the full quark field-lines inside the bubble.

Figure 2

WHOOPING COUGH IN THE USA

by Greg Beattie

The *Journal of the American Medical Association* last year carried an article entitled, "Pertussis Surveillance: United States, 1989-1991" from the Centers for Disease Control (*JAMA*, 24-31 March 1993, p. 1489).

The report stated that since 1922, doctors have been required to report diagnosed cases of whooping cough (pertussis) to the authorities. The statistics showed that the disease declined steadily from 1922 onward. According to the report, after 1976 the trend completely reversed. The disease started increasing.

A glance at the accompanying graph indicated that the change occurred between 1976 and 1980 and the figures continued increasing to the end of the graph (1991). The report suggested that "...the observed increase may be a function of improved reporting of cases", and offered no further explanation.

This is a curious situation because vaccination was stepped up during this period. Mandatory vaccination of children for school entry had suffered poor conformity until 1976 when Jimmy Carter became President. According to Coulter and Fisher (*A Shot In The Dark*, 1991) the national allocation of \$7.5 million was increased in 1977 to \$14.5 million, then in 1978 to \$33 million, and in 1978 to \$46.9 million.

By August 1989 there were only ten states which did not have whooping cough vaccination required by law as a precondition for entry to school. So the increase in whooping cough cer-

tainly can't be blamed on falling vaccination rates. These mandatory vaccination laws in the US are not until the child becomes old enough for school.

According to the *JAMA* article, in the period 1980-1991, the increase was experienced far more by the school-aged group than the preschoolers. For infants under one year, there was practically no increase, but as ages went up, so did the increase in whooping cough. The greatest (approximately five-fold) increase was in those aged 15 and over.

The story continued in an article about a year later (*JAMA*, 2 February 1994, p. 340), entitled "Resurgence of Pertussis: United States, 1993". The article confirmed that whooping cough was still increasing and in 1993 had reached its highest level since 1967!

It stated that "the total number of reported cases has increased in each successive year since 1977. Reasons for this resurgence of pertussis are unclear... Furthermore, the proportion of reported pertussis cases among children aged 1-4 years has not increased during 1980-1993." By contrast, the proportion of cases in the 10-years-and-over age group was said to have increased from 15.1% during 1977-1979 to 26.95% during 1992-93. In other words, preschoolers did not suffer the increase—only school-aged children did.

Although vaccination of school-age children in the US is almost universal, rates for preschoolers is considerably lower. For two-year-olds it is approximately 44%, according to the

latest survey (*JAMA*, 16 March 1994, p. 833). That means that roughly half the US preschoolers are unprotected.

Most cases of whooping cough occurred in the preschool age group. Interestingly the report provided statistics on the vaccination status of preschoolers who were struck by the disease.

The first report showed that of all the cases of whooping cough in 1989-91, 35% were fully up to date with vaccination. Actually, 61% had received whooping cough vaccine, but were not all fully up to date with the time schedule. In other words, over one-third of the victims had been fully protected and almost two-thirds were partially protected! Why did the disease strike so many protected preschoolers when there were millions of unprotected to choose from?

The second report presented a worse picture. This time (cases for 1993), 53.1% of the victims were up to date! Including those not up to date, this brings us to a figure of 84%! So, on this occasion, over half the victims had been fully protected and over four-fifths partially protected. This indicates that vaccination did not have a protective effect after all.

Searching the *Morbidity and Mortality Weekly Reports* (published each week by the Centers for Disease Control) for 1993, I found two further reports worth mentioning. The first was in Massachusetts involving 218 students, 96% of whom had been fully vaccinated. The second involved only four cases—three students and their teacher. The three students were fully vaccinated; the teacher's status was not known.

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